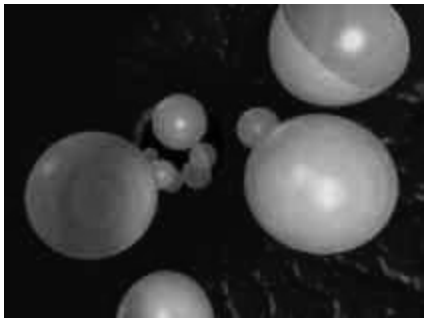
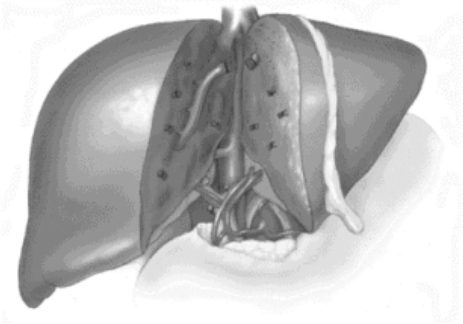
WHAT IS CHOLESTEROL?

It is a waxy, fat-like substance that is present in all human beings.



SOURCES OF CHOLESTEROL IN THE BODY

- 80% is manufactured by the liver



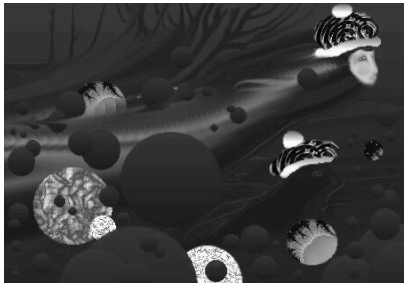
- Consumption of animal products such as meat, dairy, and eggs

ROLES OF CHOLESTEROL

- Used to make hormones
- Used to make Vitamin D
- Used to make substances that help the body digest food

HOW CHOLESTEROL IS TRANSPORTED THROUGHOUT THE BODY

It is transported through the bloodstream by lipoproteins, which are proteins that wrap around cholesterol and other types of fats (lipids).



TWO MAIN TYPES OF LIPOPROTEINS

- HDL'S (High-Density Lipoproteins)

"good" cholesterol

*They are actually beneficial to the body!

*They help to prevent heart disease by carrying cholesterol away from the arteries and back to the liver, where it is removed from the body.

- LDL'S (Low-Density Lipoproteins)

"bad" cholesterol

*They are harmful to the body!

*They are unstable and fall apart.

*They are not carried back to the liver, but instead stick to artery walls causing damage to them.

*High levels of these are associated with increased risk of heart disease.

OTHER TYPES OF LIPOPROTEINS THAT AFFECT BLOOD CHOLOESTEROL

- VLDL'S (very-low-density lipoproteins)

*"very bad" cholesterol

- Chylomicrons

*carry a small percentage of cholesterol

*rich in triglycerides, a type of fat (lipid)

WHAT IS HIGH BLOOD CHOLESTEROL?

Also known as **hyperlipidemia** or **hypercholesterolemia**. Too much cholesterol can build up in the artery walls (blood vessels that carry blood from the heart to other parts of the body), which forms plaque. The buildup of this plaque formation can cause “narrowing” or “hardening” of the arteries **(atherosclerosis)**. This can lead to the development of **heart disease**!

CAUSES OF HIGH BLOOD CHOLESTEROL THAT CAN BE CONTROLLED!

Consumption of Certain Foods

*certain foods contain fats that raise cholesterol levels

Saturated Fat

*raises **LDL** levels (bad)

Trans Fatty Acids

*foods that contain “hydrogenated oils”

Cholesterol

*animal sources such as meat, egg yolks, and cheese

Weight

*being overweight can increase total cholesterol and **LDL** levels and lower **HDL** levels

Physical Activity

*lack of physical activity can lead to weight gain, which can lead to the increase in **LDL** levels

*regular physical activity can lead to an increase in **HDL** levels, which can lead to a decrease in **LDL** levels

Cigarette Smoking

*can increase **LDL** levels

CAUSES OF HIGH BLOOD CHOLESTEOL THAT CANNOT BE CONTROLLED

- **Heredity**

*high blood cholesterol can run in families

- **Age & Gender**

*at puberty, men typically have lower level of HDL's than women

*as both men and women age, their LDL levels increase

*younger women typically have lower LDL levels than men of the same age

*women may have higher levels of LDL's after the age of 55 years

WHO SHOULD HAVE THEIR BLOOD CHOLESTEROL LEVELS CHECKED?

Those 20 years and older!

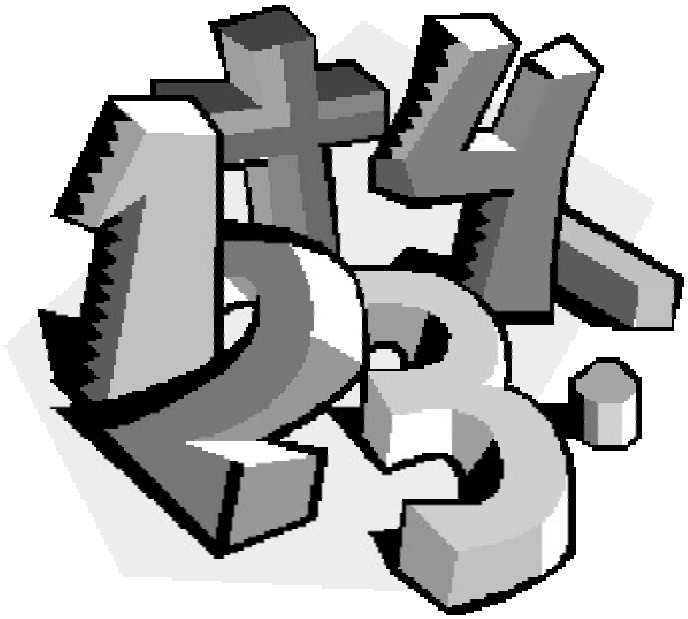
*Generally there are no signs or symptoms!

*Many individuals usually do not know that they have high cholesterol levels!

*A blood lipid profile test is needed to measure cholesterol levels

*Doctors will discuss how often these blood tests are needed on an individual basis

WHAT DO THESE NUMBERS MEAN?



TOTAL CHOLESTEROL

TOTAL CHOLESTEROL LEVELS	TOTAL CHOLESTEROL CATEGORY
Less than 200 mg/dL	Desirable
200-239 mg/dL	Borderline High
240 mg/dL and above	High

LDL'S
(LOW DENSITY LIPOPROTEINS)

LDL CHOLESTEROL LEVEL	LDL CHOLESTEROL CATEGORY
Less than 100 mg/dL	Optimal
100-129 mg/dL	Near Optimal/Above Optimal
130-159 mg/dL	Borderline High
160-189 mg/dL	High
190 mg/dL and above	Very High

HDL'S
(HIGH DENSITY LIPOPROTEINS)

HDL CHOLESTEOL LEVEL	HDL CHOLESTEROL CATEGORY
Less than 40 mg/dL	A major risk factor
40-59 mg/dL	The higher, the better
60 mg/dL and above	Considered protective against heart disease!

TRIGLYCERIDES

TRIGLYCERIDE LEVEL	TRIGLYCERIDE CATEGORY
Less than 150 mg/dL	Normal
150-190 mg/dL	Borderline High
200-499 mg/dL	High
500 mg/dL and above	Very High

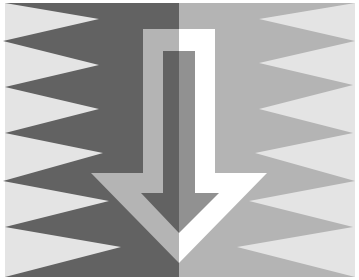
WHAT CAN YOU DO?

- Eat a diet low in saturated fat and cholesterol
- Try to participate in physical activity at least 30 minutes on most days of the week
- Maintain a healthy weight
- Stop smoking
- Reduce stress level
- Have a blood lipid profile test performed at least once every five years or as directed by your primary care physician

GET A FREE CARDIOVASCUALR SCREENING AT THE OHF!

Includes a blood lipid profile!

Just fill out the paper work attached below and take it with you to your screening!



FOR MORE INFORMATION…..

- Heart Center Online

http://www.heartcenteronline.com/myheartdr/common/articles.cfm?Artid=35&startpage=1#1

- National Heart, Lung, and Blood Institute

http://www.nhlbi.nih.gov/health/dci/Diseases/Hbc/HBC_All.html

http://www.nhlbi.nih.gov/health/public/heart/chol/wyntk.pdf

- American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=1516

- KSC Occupational Health Facility

http://sgs.ksc.nasa.gov/sgs/sites/other/chs/omehs/occmed/home/index.cfm?page=hew